

Step-by-Step Solutions with Pro

Get a step ahead with your homework

[Go Pro Now](#)



FROM THE MAKERS OF WOLFRAM LANGUAGE AND MATHEMATICA

 **WolframAlpha**

$2 = x^x$

[X](#) [=](#)



$\int \sum \partial \omega$

\star

$\sqrt{\cdot}$

∂f

(\cdot)

$\sqrt[n]{\cdot}$

a_w

...

\rightarrow

\oplus

\odot

\neq

\geq

\leq

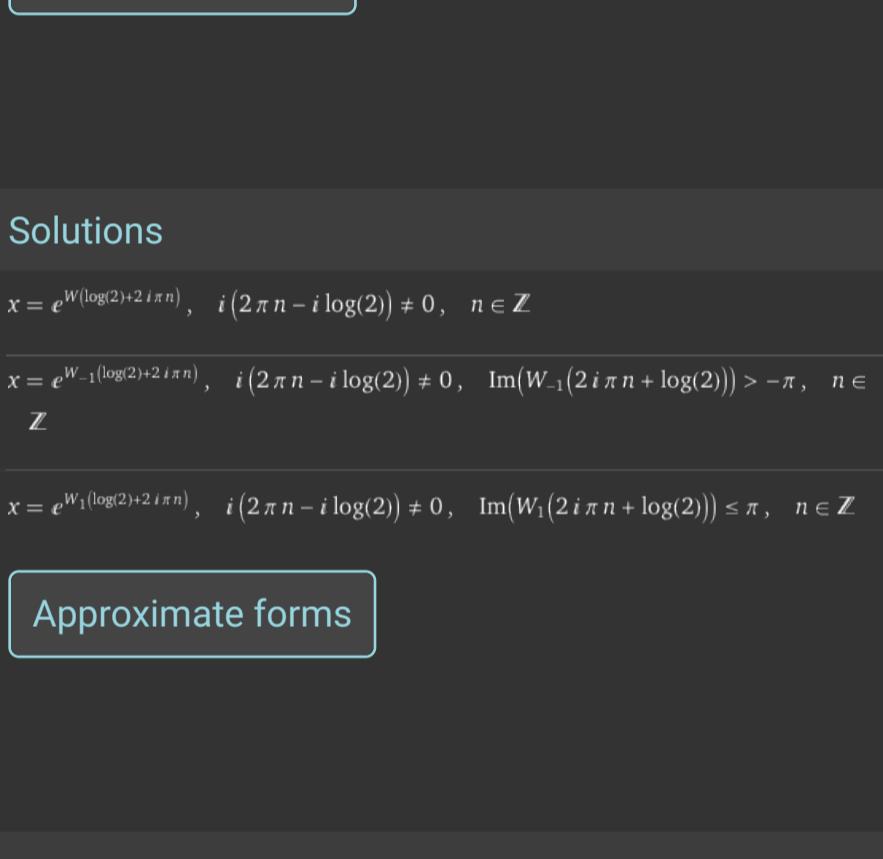
...

Input

$2 = x^x$

[⚙️](#)

Plot



Number line

1.2 1.4 1.6 1.8 2.0

[⚙️](#)

Real solution

$x = e^{W(\log(2))}$

[⚙️](#)

[Approximate form](#)

[ⓘ](#)

Solutions

$x = e^{W(\log(2)+2i\pi n)}, \quad i(2\pi n - i\log(2)) \neq 0, \quad n \in \mathbb{Z}$

[⚙️](#)

$x = e^{W_{-1}(\log(2)+2i\pi n)}, \quad i(2\pi n - i\log(2)) \neq 0, \quad \text{Im}(W_{-1}(2i\pi n + \log(2))) > -\pi, \quad n \in \mathbb{Z}$

[⚙️](#)

[Approximate forms](#)

[ⓘ](#)

 POWERED BY THE WOLFRAM LANGUAGE

Related Queries:

[plot 2 - \(x + i y\)^\(x + i y\)](#)

[=](#)

[plot 2 - x^x](#)

[=](#)

[first derivative 2 - x^x](#)

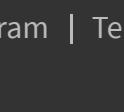
[=](#)

[Mathematica function Reduce](#)

[=](#)

[plot3d arg\(2 - \(x + i y\)^\(x + i y\)\)](#)

[=](#)



Give us your feedback »



Have a question about using Wolfram|Alpha?

Contact Pro Premium Expert Support »

[Pro | Mobile Apps](#)

[Products | Business | API | LLM](#)

[About | Contact |](#) [f](#) [X](#) [i](#) [in](#)

©2025 Wolfram | Terms | Privacy